Badlands Bombing Range Report

U.S. Army Corps of Engineers

Omaha District

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Introduction

The Badlands Bombing Range Report is produced by the U.S. Army Corps of Engineers, Omaha District to present current information about environmental cleanup programs underway at the Former Badlands Bombing Range (BBR). Many state, federal, and tribal agencies are involved in the project including the Oglala Sioux Tribe and its BBR Project Office, the U.S. Army Corps of Engineers, the U.S. Air Force, and the National Park Service.

The Corps of Engineers is required by law to conduct an Engineering Evaluation and Cost Analysis (EE/CA) to evaluate the cost and feasibility of environmental investigations and the resulting cleanup for sites at which contamination has been identified. EE/CA field activities are underway at the Former BBR, which will address sites with contamination from ordnance and explosives (OE). Upon completion of the EE/CA, the sites will be further evaluated for potential hazardous and toxic waste. A look at the recent fieldwork is provided in this issue.

Also included in this issue of the BBR Report are updates on the fiscal year 2000 Cooperative Agreement between the BBR Project Office and the Corps of Engineers and its recent successes, the rights-of-entry required before conducting OE investigations on private tribal land, and the OE activities for the Oglala Sioux Rural Water Supply System (OSRWSS) pipeline.

The status of the OE environmental cleanup process is provided, information on the next Restoration Advisory Board (RAB) meeting, acronym definitions, and the project point of contact. A diagram describing the many organizations from all across the U.S. who are participating in the restoration of the former BBR will be presented at the next RAB meeting ■

BBR RESTORATION PROGRESS!

Former Badlands Bombing Range (BBR) restoration activities have progressed on many fronts over the past few months, including work on the Engineering Evaluation/Cost Analysis (EE/CA), the OSRWSS pipeline, the 2001 Cooperative Agreement, additional sampling activities by the Omaha District of the U.S. Army Corps of Engineers, and the airborne geophysical investigation conducted by Oak Ridge National Laboratory, as described below.

OSRWSS Pipeline Installation

The Oglala Sioux Rural Water Supply System (OSRWSS) pipeline has been installed halfway across Cuny Table. The OSRWSS pipeline will supplement existing water supplies in the area with water from the Missouri River in central South Dakota.

Foothills Engineering Consultants is currently preparing a geophysical report for the OSRWSS pipeline route. OE clearance activities, and paleontology and archeology surveys for the OSRWSS pipeline route must be completed before the water pipeline can be installed and brought on line. Field activities for the OSRWSS pipeline installation will resume in Spring 2001.

Cooperative Agreement

The BBR Project Office is currently funded through May 2001 by the fiscal year 2000 Cooperative Agreement. The BBR Project Office has submitted a draft Cooperative Agreement to the U.S. Department of Defense to provide funding for the BBR Project Office through May 2002. A meeting between Department of Defense and BBR Project Office personnel will be held to finalize the Cooperative Agreement for fiscal year 2001.

The goal of the new Cooperative Agreement will be to increase the role of the Oglala Sioux Tribe by enabling the BBR Project Office to provide management, training, public education, and community relations support for the BBR project. These activities provide jobs for tribal members during restoration of the Former BBR.

Native American Unexploded Ordnance (UXO) Tech I and UXO Sweep personnel who trained through the BBR Project Office have worked on the Former BBR with such organizations as Parsons Engineering, USA Environmental, and Environmental Hazard Specialists International, Inc. UXO Tech I personnel have also assisted USACE (Huntsville Engineering & Support Center District) contractors on sites throughout the U.S., including locations in New York and Massachusetts. UXO Tech I personnel are in demand because of their abilities, as demonstrated by their Tech I status. They can also help contractors meet Affirmative Action quotas and demonstrate compliance with Tribal Employment Rights Office requirements.

Environmental Management, Inc. (EMI), a Native American-owned consulting group in Idaho Falls, Idaho, is assisting the BBR Project Office in preparing the 2001 Cooperative Agreement to meet Department of Defense requirements for restoration activities. The 2001 Cooperative Agreement will be structured so that the BBR Project Office operates similar to other contractors working for the federal government. EMI is also helping the BBR Project Office develop standard operating procedures for field reconnaissance activities, safety plans for field activities, ROE requests, and office development plans. Other areas in which tribal participation will increase in the future include performing geophysical surveys, land surveying, and preparing project reports.

Engineering Evaluation/Cost Analysis (EE/CA)

Fieldwork for the EE/CA to evaluate how best to assess and control Ordnance and Explosives (OE) sites at the Former BBR resumed last April and ended in October 2000. The Former BBR was divided into 29 sectors to help manage and sequence cleanup operations. The BBR Project Office, the U.S. Army Corps of Engineers (USACE), and Parsons Engineering (Parsons) have consolidated some sectors for future work and developed a new framework for sequencing sectors of the Former BBR for investigation.

The sectors were ranked based on tribal priorities, the degree of known usage of ordnance, present land use, and topography. Some of the sectors more likely to have human exposure are being evaluated first. Geophysical surveys are conducted in each sector after determining that there are no cultural features, archaeological items, or paleontological artifacts present that could be endangered during Explosives and Ordnance Demolition (EOD) activities. The BBR Project Office, in conjunction with the Oglala Sioux Tribe (OST) Grey Eagle Society, have been involved in the field decision process for all grids that have been relocated for cultural, archaeological, or paleontological reasons.

The geophysical surveys detect and locate buried and surface OE using hand-held or helicopter-mounted magnetometers. The items detected in randomly selected grids are excavated and safely removed or detonated, as required. Before- and after-detonation sampling has been performed to determine whether residual ordnance-related chemicals are present in soil. No explosives contaminants were found in any of the samples taken to date.

Field operations have been conducted in seven sectors to date. Parsons recently presented the findings of the EE/CA for Sectors 1 through 3 to the OST Tribal Council. Sector 1 of the Former BBR is the Cuny Table area. Sector 2 includes the Scenic Bombing Range. Sector 3 covers the southeast portion of the Former BBR, surrounding the "Reflector City" target.

The Corps of Engineers must have right-of-entry (ROE) permits from landowners before field activities can proceed on each piece of property. ROE permits are still needed for many Fee Lands in the Former BBR before EE/CA activities can be completed. Further ROE permits will be required from landowners in the future when accepted decisions are made for further removal actions. All removal actions will have a public review period of at least 30 days before the decision is finalized.

In addition to Sectors 1 through 3, Parsons has completed most of its analysis of Sectors 4 through 7. Parsons is scheduled to produce a draft EE/CA Report containing a draft proposal for removal action in Sectors 1 through 3. This report should be available by mid-March 2001 for review and public comment over the 30-day review period. We will discuss this proposed removal action at the next Restoration Advisory Board (RAB) meeting on March 29, 2001. Comments will be accepted any time during the 30-day review period. Public document repositories related to the Former BBR restoration project can be found at the Oglala Lakota College at Kyle, South Dakota, and at the Public Library in Rapid City, South Dakota. The address of the USACE Public Affairs Office is provided on the back of this newsletter.

Oak Ridge National Laboratory Geophysical Investigation

Oak Ridge National Laboratory (ORNL) used helicopters to perform geophysical investigations at the Former BBR in late 2000. This investigation was to have begun earlier last year, but delays occurred because the helicopters were being used to fight wildfires throughout the western U.S. last summer. Use of helicopters to collect geophysical data at the Former BBR adds safety for UXO field crews because contact with the ground and possible buried UXO is avoided when helicopters are used. Based on the results of a geophysical survey, UXO experts can select the best methods for investigating geophysical anomalies detected during the helicopter fly-over.

ORNL has issued a preliminary report of its geophysical investigation conducted at the Former BBR in 1999. The 2000 report will be submitted later this year. In 2001, ORNL plans to perform verification work in areas that were scanned in late 2000.

ACRONYMS

BBR	-	Badlands Bombing Range
EE/CA	-	Engineering Evaluation/Cost Analysis
EMI	-	Environmental Management, Inc.
EOD	-	Explosives and Ordnance Demolition
EPA	-	U.S. Environmental Protection Agency
OE	-	Ordnance and Explosives
ORNL	-	Oak Ridge National Laboratory
OSRWSS	-	Oglala Sioux Rural Water Supply System
OST	-	Oglala Sioux Tribe
RAB	-	Restoration Advisory Board
ROE	-	Right-of-Entry
USACE	-	U.S. Army Corps of Engineers
UXO	-	Unexploded Ordnance

USACE Sampling Activities at the Former BBR

Various chemicals and metals associated with ordnance-related chemical contamination may also occur naturally in soil and groundwater in many areas of the world. Contamination of an area occurs only if the measured concentration of a chemical or metal in an area is significantly greater than its naturally-occurring, or background, concentration in that area. To determine whether contamination of an area by a specific chemical or metal has occurred, it is first necessary to determine its natural concentration in that specific area. Contamination cannot be demonstrated unless the background concentrations of the alleged contaminants can be established.

Determining proper background locations that accurately portray naturally-occurring concentrations in the vicinity of suspected areas of contamination can be a challenging task. The BBR Project Office, State of South Dakota,and the U.S. Environmental Protection Agency (EPA) are working jointly to develop a flow chart that will document the decision-making process in determining scientifically acceptable background locations. The foundation of the approach will be to identify areas on the bombing range where these is no evidence of Department of Defense activity. Those areas will then be divided further into units with similar soil types. This flow chart will assist others in future selection of proper background locations.

In November 2000, the USACE, Omaha District collected surface water samples from Wind Creek at the Demolition Area (Site 5) on the Former BBR. Water samples were collected at locations upstream of Site 5 to determine naturally-occurring background concentrations of several metals in Wind Creek. Other water samples were collected from Wind Creek just downstream of Site 5. The concentration of metals in the downstream samples will be compared to the concentration of metals in the upstream background samples to determine whether metals contamination of Wind Creek occurred.

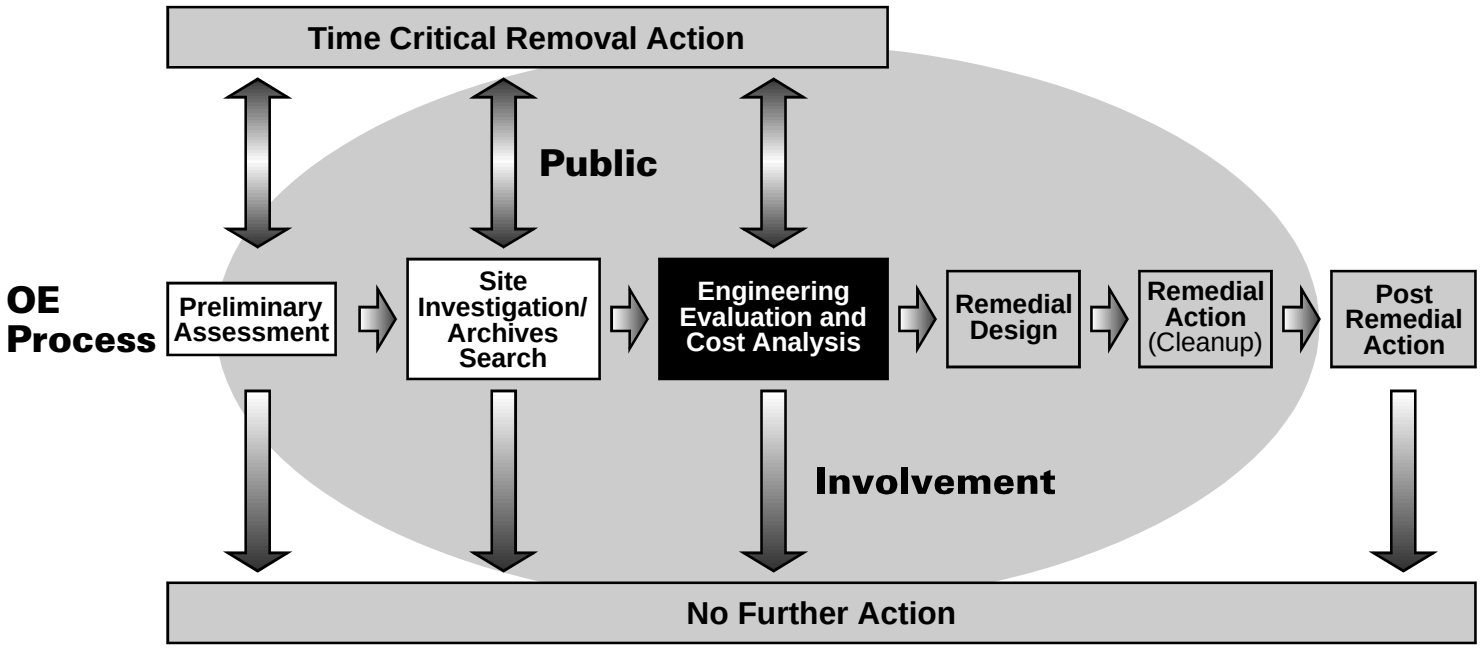
Environmental Cleanup Process

? Where We Are in the Process

The BBR Project Office is reformatting the Archives Search Report. It will be redistributed to the appropriate individuals once it is complete.

Analysis of sectors 1 through 3 (of 29 sectors) is complete, with recommendations for future work to be issued this month; analysis of sectors 4 through 7 is nearly complete. Field work on the remaining sectors will be initiated as new funding becomes available.

OE Program Update



Corps Contact

The *Badlands Bombing Range Report* is researched, written, compiled, and distributed by members of the Corps of Engineers, Omaha District BBR Project team. Articles relating to the environmental restoration of the Former BBR may be submitted for publication by members of the RAB; the Oglala Sioux Tribe; federal, state, or local agencies; and the general public. Mr. Thomas O'Hara has been designated as the official point of contact for all public inquiries concerning the Corps of Engineers' efforts at the Former BBR. All calls and letters directed to other Corps representatives will be re-routed through the Public Affairs Office. To avoid delays, please contact Mr. O'Hara directly at the address below.

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RAB NOTES

The BBR Restoration Advisory Board (RAB) meetings are held in a workshop format to better meet the needs of the public. This format allows tribal and public members to freely interact one-on-one with BBR Project personnel, agency members, and others involved with the project.

The next BBR RAB meeting will be held on March 29, 2001, in the Piya Wiconi Auditorium at the Oglala Lakota College near Kyle, South Dakota. An open forum for public browsing will begin at 10:00 a.m. At noon, the meeting will break for lunch and at 1:00 p.m., the co-chairs will hold a short, formal discussion. Members of the public are encouraged to stop and visit with the project team and share their experiences at the former bombing range and any information that will assist in the cleanup efforts. The open forum will reconvene at 3:00 p.m.

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